and movements of clouds has only been satisfactorily developed within the past ten years, although it was undoubtedly suggested and tried as early as 1857. The study of lightning, by means of photography began, we believe, with the work of Dr. H. Kayser, of Berlin, in 1884, and von Hænsel in 1883.

In studying the distribution of polarized light over the sky it may be practicable to so arrange the apparatus that the relative amount of polarization may be deduced by photographed records, so as to give a general view of the condition of a large portion of the sky. The record of the amount of sunshine and cloudiness by the so-called Jordan sunshine recorder is well known, although this is strictly speaking a blue print rather than a photographic process. A photograph of the distorted disc of the sun near the horizon, if one could be taken, would be a record of the irregularities of atmospheric refraction, and, therefore, of the density of superposed layers of air.

Photographs of snow crystals, frost work, sections of hailstones, views of waterspouts and tornadoes, halos, rainbows, and glories are not rare. Even the waves of compression in the atmosphere attending a bullet or an explosion, or any wave of sound, as also the streams of mixed warm and cold air flowing around an obstacle have been photographed.

Those meteorologists who take a personal interest in all these applications of photography will appreciate the efforts that are being made by the Royal Photographic Society of London to extend the scope of its annual exhibitions to every branch of photography and its applications. Those who have interesting photographs or photographic apparatus that they wish to exhibit should communicate directly with Mr. John A. Hodges, Honorary Secretary, No. 66 Russell Square, London, W. C. The exhibition will be opened on October 1 and medals will be awarded.

The exhibition will be arranged in five sections, of which the last is entitled Scientific Photography and Photography in its Technical Applications. Under this head, the circular reads as follows:

This section will comprise examples of work shown for its technical qualities and apparatus used in photographic investigations: The various processes of color photography; the photographic reproduction of paintings, drawings, maps; photographs by artificial light; photography applied to industrial and educational purposes, astronomy, spectroscopy, geology, meteorology, microscopy, medicine, surgery, and the Röntgen rays; surveying and engineering; zoology and botany; telephotography, new processes, enlargements; photography applied to military purposes, recording instruments, etc.; negatives, transparencies, stereoscopic prints and slides; lantern slides, and general work.

Exhibits may be excluded unless the points of special technical or scientific interest are distinctly stated.

Medals will be placed at the disposal of the judges, but noncompetitive work will be admitted.

There seems to be a small charge to each exhibitor for the wall space occupied by him.

A NEW METEOROLOGICAL JOURNAL.

By a letter from Mr. A. J. Monné, of Nykerk, we learn that with the cooperation of Mr. Chr. A. C. Nell he proposes to publish a journal for meteorology in the Dutch language. The meteorology of the ocean has, as is well known, been diligently studied by the Dutch navigators, and forms the principal part of the work of the meteorological institute of the Netherlands, founded by Buys-Ballot, and now conducted by Prof. Dr. M. Snellen of the University of Utrecht. Moreover, the islands of the Dutch West Indies and East Indies are so near to the West Indies and Philippines, respectively, that our interest in their meteorology has lately become greatly quickened. We doubt not that the Dutch journal will have much interest for many American readers.

CLIMATIC DIVISIONS OF MISSOURI.

In the annual summary of the Missouri section, for 1899, Mr. A. E. Hackett, Section Director, adds a general review of the climate of Missouri. He divides the State into five physiographic divisions, and attributes to each of them the following normal temperatures and rainfall for the respective seasons:

Divisions.	Normal mean temperatures.				Normal average precipitation.			
	Spring.	Summer.	Autumn.	Winter.	Spring.	Summer.	Autumn.	Winter.
	°	°	°	°	*Ins.*	*Ins.*	*Ins.*	*Ins.*
Northwest plateau	51.8	74.5	53.6	27.7	10.74	13.62	7.32	4.65
Northeast plain	53.5	75.3	55.1	30.6	11.58	11.87	8.45	6.51
Southwest lowlands	54.3	75.7	56.1	31.9	12.44	12.59	7.79	6.42
Ozark plateau	55.1	74.8	56.2	34.7	14.00	12.75	8.89	8.09
Southeast lowlands	58.0	76.7	58.3	37.3	14.52	11.86	9.90	10.57
State	54.5	75.3	55.9	32.4	12.65	12.44	8.47	7.25

THE EFFECTS OF DIMINISHED PRESSURE ON COOKING.

In the January report of the New Mexico section Mr. R. M. Hardinge quotes the following from a cook book issued by the ladies' guild at Albuquerque, N. Mex. The whole article seems to give results of actual experience and careful observation on a subject which is now attracting great attention at the hands of experimental stations that are doing for the kitchen that which has already been done for the farms and the workshops. Some of the hypothetical explanations given by Mrs. C. L. Herrick, to whom this article is due, may not stand the test of further scientific investigation, but the whole subject is eminently worthy the attention of the chemists.

It is a matter of common observation among housekeepers in New Mexico that recipes and practices found reliable elsewhere fail to achieve the expected results on the Plateau.

Some of us have endured many trying experiences in adapting our cooking to our environment, and it is to aid friends to a more easy accomplishment of these household tasks that these lines are written.

One of the difficulties has been with our cake mixing and baking. It took me a long time to discover that the use of the same number of eggs I had been accustomed to in a lower altitude caused my cakes to be a failure. I now use half as many as my eastern recipes call for, adding two tablespoons of milk or water for each egg left out. The reason for this is that the albumen of the egg, when added to the batter, forms a tenacious coating, which helps it to retain the gases that tend to escape by virtue of their expansion. The albumen is much heavier than the gases engendered by the raising agent, and when the atmospheric pressure is heavier, as in lower altitudes, it is impossible for these gases to escape so rapidly, and there is time for the batter to be thoroughly aerated before hardening.

Here the heat of our ovens is longer in penetrating, the atmospheric pressure is diminished, and the gases tend to escape before the heat is sufficient to harden. This escape of the gases prevents the aeration of so large a quantity of the albumen, and the superfluous amount serves but to toughen the cake. It is necessary to apply the heat quickly and evenly in order to coagulate the albumen and prevent the collapse or "falling" of the cake.

Less shortening and less sugar can be used here, because of their weight and, also, because both melt in the process of baking, and in this way dilute the batter and make it easier for the gases to escape. To counteract this, more flour must be used, the proteids of which form a glutinous consistency which prevents the escape of the gases.

It has been found more satisfactory to add the raising agent after all other mixing is done and just as the batter is ready to place in pans for the oven. This prevents the escape of the gases before reaching the oven, which is sure to occur if the raising agent is sifted through the flour and added gradually, as we were accustomed to mix ingredients in a lower altitude, for effervescence begins as soon as the raising agent is moistened.

I have been much more successful in using one teaspoonful of soda with two teaspoons of cream of tartar as a raising agent when a teaspoon of baking powder is called for, without, however, being able to determine the reason.

We are all familiar with the varying temperature of boiling water